REMARKS

Claims 1, 12, and 13 are further amended herein. Claims 1, 2, and 5-13 remain pending in the captioned case. Applicants will address below the differences between the cited references and supplementally amended claims 1, 12, and 13. All other rejections and objections to the specification and/or claims were addressed in the earlier response.

Section 103 Rejection

Claims 1, 2, 4-9, and 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,793,318 to Jewett (hereinafter "Jewett") in view of U.S. Patent No. 5,740,531 to Okada (hereinafter "Okada"). Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jewett, Okada, and U.S. Patent Application Publication No. 2002/0053062 to Szymanski. Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jewett, Okada, and U.S. Patent No. 5,007,088 to Ooi. Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jewett, Okada, Ooi, and U.S. Patent No. 4,835,517 to Van der Gracht. For sake of brevity, Applicants will only address the rejections of independent claims 1, 12, and 13.

To establish a case of *prima facie* obviousness of a claimed invention, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Second, there must be a reasonable expectation of success. As stated in MPEP 2143.01, the fact that references can be hypothetically combined or modified is not sufficient to establish a *prima facie* case of obviousness. *See In re Mills*, 916 F.2d. 680 (Fed. Cir. 1990). Finally, the prior art references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d. 981 (CCPA 1974); MPEP 2143.03. Specifically, "all words in a claim must be considered when judging the patentability of that claim against the prior art." *In re Wilson* 424 F.2d., 1382 (CCPA 1970).

Moreover, in response to the recent U.S. Supreme Court decision in *KSR Int'l Co. v. Teleflex, Inc.* (U.S. 2007), new guidelines were set forth for examining obviousness under 35 U.S.C. § 103. The U.S. Supreme Court reaffirmed the *Graham* factors and, while not totally rejecting the "teachings, suggestion, or motivation" test, the Court appears to now require higher scrutiny on the part of the U.S. Patent & Trademark Office. In accordance with the recently submitted guidelines, it is "now necessary to identify the reason" why a person of ordinary skill in the art would have combined the prior art elements, or at least describe the pertinence of the prior art elements set forth in the cited disclosure, in the manner presently claimed. Moreover, even if combined, the *Graham* factors require that a determination of the differences between the combined prior art and the claims at issue is needed. Using these standards, Applicants contend that the Office Action fails to identify the reasons for combining the cited references and, even if combined, fails to note substantial differences between the combined references and the claims at issue. Some distinctive features of the presently pending claims are set forth in more detail below.

The combination of Jewett and Okada does not teach or suggest, and adequate reasoning is not provided for such combination, to render unpatentable claims to inserting pseudo random values or random values at substantially the entirety between intervals at which the first digital signals are present. Independent claims 1, 12, and 13 each describe a combining unit (claim 1) or the steps of inserting (claims 12, 13). Present claims 1, 12, and 13 focus on generating pseudo random values or random values. Those values are placed in particular regions. As shown in Fig. 2, the values 21 are placed or inserted throughout substantially the entirety of regions where first digital signals 20 do not exist. Specifically, by placing the values in substantially the entirety of intervals between data signals 20 (Fig. 2), "gaps between spectral lines are substantially reduced . . ." (Specification -- pg. 4, lines 4-6, 12; pg. 7, lines 16-20; pg. 9, lines 13-18). Thus, one must keep in mind that the present claims call for pseudo random values or random values to be substantially filling the intervals between digital signals for the benefits described in the present specification. Thus, filling gaps in the time domain results in filled gaps also between spectral lines in the frequency (spectral) domain.

The Office Action agrees that Jewett does not teach placing pseudo random values or random values at intervals between the first digital signals (Office Action -- pg. 5). However, contrary to the assertions made in the Office Action, Okada also fails to teach filling substantially the entirety of intervals between first digital signals with pseudo random values or random values.

Okada teaches receipt of a voice signal upon amplifier 12 and converts that voice signal at a sampling rate at timing converter 16 so that bursts are generated at intervals of 5 msec (Okada -- col. 3, lines 15-21; Fig. 1). Importantly, Okada requires that the bursts at 5 msec intervals comply with time-division multiple access (TDMA) (Okada -- col. 3, lines 21-22). When voice is present and detected by voice detector 44, the voice bursts are sent at 5 msec intervals, as shown as the first three bursts in Fig. 5 of Okada. Again, between bursts, no signal is present.

However, when voice detector 44 detects voice silence, selector 18 selects a PN pattern bookended with a start and end frame signal (Okada -- col. 3, lines 48-57). Thus, when silence is detected, rather than placing a voice burst pattern that begins and ends with a 5 msec space therebetween, a PN pattern is placed in the regions where the voice pattern would normally be placed, with still a 5 msec space therebetween (Okada -- col. 3, lines 51-57; col. 4, lines 29-34; col. 5, lines 17-32; Fig. 5).

Therefore, Okada specifically teaches away from the presently claimed limitation of inserting pseudo random values or random values at substantially the entirety between intervals at which first digital signals are present. Instead, Okada requires that voice or PN data be spaced apart from each other within a frame, and at 5 msec intervals depending on whether a voice or silence is detected. In order to comply with TDMA multiplexing, gaps are needed between each voice/PN pattern frame, and those gaps must not be filled in order to possibly accommodate voice from other mobile units (Okada -- col. 3, lines 32-37). Therefore, Okada cannot place pseudo random values or random values at substantially the entirety between first digital signals (i.e., between discrete and separate voice or PN bursts).

As discussed in the earlier response, the start-of-frame and end-of-frame signals that bookend the intervening voice or PN pattern occur at roughly 5 msec intervals, and cannot occur over the entire gap between bursts due to the reason for having a start-of-frame and end-of-frame signal for each burst. Clearly, when reading Okada, a skilled artisan would not be motivated to destroy the intent of TDMA or to disregard the need for start-of-frame or end-of-frame generation for each burst since such is a necessity in Okada.

For at least the reasons set forth above, Applicants believe the combination of Jewett and Okada does not teach the limitations of present independent claims 1, 12, and 13, as well as claims dependent therefrom. Accordingly, removal of this rejection is respectfully requested.

CONCLUSION

The present amendment and response is believed to be a complete response to the issues raised in the Office Action mailed September 5, 2007. In view of the amendments and remarks presented herein, Applicants assert that pending claims 1, 2, and 5-13 are in condition for allowance. If the Examiner has any questions, comments or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Daffer McDaniel, LLP Deposit Account No. 50-3268.

Respectfully submitted,

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